



Investment Office

P.O. Box 2749

Sacramento, CA 95812-2749

Telecommunications Device for the Deaf - (916) 795-3240

(916) 795-3400

April 17, 2006

AGENDA ITEM 3a

TO: MEMBERS OF THE INVESTMENT COMMITTEE

- I. SUBJECT:** Environmental Initiative Update
- II. PROGRAM:** CalPERS Real Estate
- III. RECOMMENDATION:** Investment Committee to review the one year results for energy usage in the Core portfolio and the additional green wave efforts within the Core and Non Core portfolios. Investment Committee to also approve the recommendations noted on Section IV.F.

IV. ANALYSIS:

Background

At the December 13, 2004, Investment Committee meeting, the Investment Committee approved and adopted the new Energy Efficiency Plan proposal made by State Treasurer Phil Angelides. The plan proposed a 20% energy reduction in the real estate core portfolio over a five-year period, subject to the following conditions:

1. To report back to the Investment Committee on the goal within one year of benchmarking and measuring energy reduction efforts.
2. To do a cost-benefit analysis before making any investment in energy reducing enhancements to ensure a proper return for the cost expended.

In this agenda item, staff reports back on the results of the first year's activity towards achieving the Core energy reduction goal adopted by the Board. Staff

would also like to share additional green activities which CalPERS Real Estate staff and investment partners undertook in the past year.

This report is separated into six main areas, with the first two sections focusing on the Core Real Estate Portfolio's energy and waste management efforts. The next three sections focus on the additional efforts undertaken by the Real Estate staff and the Core and Non Core partners towards reaching the real estate environmental program goals. The final section offers staff recommendations.

Although the Energy Efficiency Plan adopted by the Board was focused on the energy use of the Core Portfolio, the Real Estate staff extended the focus to also monitor the efforts on water conservation, waste management, and indoor air quality improvements for properties within the Core and Non Core (CURE, Single Family Housing, and Timber) Portfolios.

A. Report on the Energy Efficiency Plan - Core Portfolio

In an effort to report on the Energy Efficiency Plan adopted by the Board in December 2004, the Core Portfolio was examined to gather quantitative data on energy use for the base year of 2004 and the reporting year of 2005. Properties held until the end of 2005 were required to submit the electricity and gas use for the two years. Five (5) of the eight (8) Core partners qualified to provide the data while the other three (3) partners had no information to report, due to the dispositions of assets that took place in the years 2004 and 2005.

Energy usage data was received for 49 of a total of 133 Core buildings owned as of 12/31/05. The 49 buildings had a total of over 17 million net rentable square feet of commercial space. Energy savings for each of the Core partners was calculated based on the net rentable square footage of the total reportable buildings within each partnership, given the relevant occupancy rates.

Based on the Core Portfolio data received for 2005, the total electricity use decreased by 15,720,340 KWHs and the total gas use decreased by 197,036 BTUs. This reduction translates to a 6.9 percent reduction in electricity (KWHs) used for the year 2005 compared to the base year of 2004 (decrease/increase in energy use over the base year energy use). Changes in Gas (BTU) use were minimal (rounded to 0.0 percent) between the base year and the reporting year. Therefore, staff reports the overall Energy savings for the year 2005 in the Core Real Estate Portfolio was approximately 6.9%.

Attachment 1 provides data for the electricity and gas usage for each of the Core Partnerships.

Major challenges encountered during the data gathering process for energy use included:

- The Core portfolio assets are located in different geographic locations, resulting in data variances within the same asset class (Attachment 1 shows a variance of data in the BTU usage for the Office sector).
- Some Core partnerships (e.g. Retail) have Joint Venture structures, thereby making the data gathering process more difficult.
- Some partnerships have large portfolios, thus requiring a sampling of the buildings for data gathering purposes (e.g. RREEF).
- The Core portfolio experienced major asset dispositions, thereby limiting the availability of data.
- A standard method for data reporting was not determined when the Energy Efficiency Plan was adopted.

B. Other Quantifiable Energy Efficiency Measures - Core Portfolio

In addition to Energy data, Real Estate staff requested partnerships to report on waste recycling for the reporting year 2005 as part of its quantitative data gathering process. Two partnerships recycled a total of 384,226 tons of waste in 2005 equal to 68 to 70 percent of each of their total waste.

Attachment 2 provides the details of the total waste recycled for year 2005.

Special significance is noted in regards to the reported status of certain properties. Six (6) of the forty-nine (49) reporting assets for the Core portfolio with an approximate market value of \$630.7 million were Energy Star labeled and one property with a market value of approximately \$163.2 million was LEED certified. In addition, one Core development property, not part of Attachment 1, was the first in the world to be pre-certified under the LEED-CS program and the first office building in the United States to be awarded the Gold LEED Certification (1180 Peachtree, a 41-story office building costing \$158 million, located in Atlanta).

C. Green Activities undertaken by Partners - Core and Non Core Portfolio

All of the Core partnerships and the Non Core partnerships (excluding REITS, International, Opportunistic, and/or Co-mingled Funds, as well as partnerships with no assets under management for 2005) responded to a survey formulated by staff. The survey covered difficult to quantify green activities undertaken in the following three areas within the Core and Non Core (Housing, Senior Housing, and CURE) partnerships:

1. Energy savings methods used in 2005:

Based on the survey responses, some of the energy savings methods adopted by the partners are: adjusting or reprogramming temperature control systems, installing compact florescent lighting and/or occupancy sensors, replacing aged systems to include energy efficient units, using insulated glass glazed with Low-E coating, using gas hot water and HVAC systems that provide fresh air quality beyond ASHRAE standards, using Energy Star appliances, installing high efficiency condenser and heating units, using "Green Fiber" wall spray

insulation, using California's Title 24 energy standard, and working with Powerlight Solar Energy Systems to integrate energy efficiency principles and solar energy technologies.

Attachment 3a provides the itemization by Partner of the Energy activities undertaken in 2005.

2. Water conservation methods used in 2005:

Some of the water conservation methods adopted by the partnerships are: installing sensor operated flushers and faucets, using high efficiency irrigation technology to capture rain or recycled water, using water pollution abatement plans, seasonal changes to watering schedule, using drought-resistant plants, fixing leaks and upgrading water treatment system, collecting storm water for irrigation, and use of black water treatment systems for re-use of non-potable water.

Attachment 3b provides the itemization by Partner of the Water Conservation activities undertaken in 2005.

3. Waste management methods used in 2005:

Some of the waste management methods adopted by the partnerships are: sorting scrap metal for recycling, implementing recycling programs in each of the properties, specially designed rooms to accumulate recycled paper and bagged aluminum cans from tenant spaces, recycling of carpet and carpet tiles, use of recycled materials such as high volume fly ash, reuse of materials such as salvaged wood, recycling demolition and construction waste, installing trash compactors, providing homeowners information on the recycle program, and separating wet/dry waste.

Attachment 3c provides the itemization by Partner of the Waste Management activities undertaken in 2005.

D. Green Activities planned by CalPERS Partners for 2006 - Core and Non Core Portfolio

The Core and Non Core Partners were also requested to submit a survey response on the methods they plan to adopt for 2006 to improve on their greening activities in energy, water, waste, and indoor air quality management.

Based on the responses received, some of the key areas the Core and Non Core Partners plan to improve are: purchasing environmentally efficient products, use of internal monitoring tools to look for patterns of waste, expand environmental program to International investments, hire consultants to educate property managers on environmental impacts of tenant actions, and continue to improve on the greening methods adopted in 2005.

A more detailed summary of each of the Core and Non Core partner survey responses and how partners plan to improve Greening activities for 2006 are in Attachment 4.

E. **Other Actions undertaken by Staff**

In addition to obtaining the quantitative data and the greening efforts of the Core and Non Core Partnerships, staff has internally worked towards making an impact on the real estate environmental program in the following ways:

- Partners have been informed in writing regarding the goals for the real estate environmental program and encouraged to be part of the Energy Star program, where economically feasible.
- Staff has been actively involved in speaking at conferences, forums, invitational events on topics that place an emphasis on the real estate environmental program. Industry experts have been invited to speak at the CalPERS Core, CURE, and Housing Partner Conferences.
- Separate meetings with the Core and Non Core partners took place early 2005 at CalPERS to identify the best methodologies to adopt for the real estate environmental program.
- In 2005, staff reviewed new investment opportunities that place an emphasis on green building as well as other greening activities in areas such as energy, water, waste and indoor air quality related activities. Some of the investments that staff reviewed in the past include opportunity funds, investing in green buildings, timber investments focusing on sustainability/stewardship, and green REITS. Staff will continue to review new investment opportunities that have an environmental emphasis.

A more detailed description of the staff's efforts undertaken for the real estate environmental program is listed in Attachment 5.

F. **Recommendations**

Based on the first year of reporting on the Energy Efficiency Plan adopted by the Board and based on the other green activities undertaken by the partners, staff recommends the following:

1. Continue to monitor energy usage to measure annual savings in energy consumption for the Core portfolio, while modifying the database to make the data-gathering process more efficient. Work with Core partners to increase the number of reportable properties within their portfolios in the coming year.
2. Develop and implement a Real Estate Green Policy.

3. Continue to educate investment partners in terms of CalPERS' interest in the area of Green building/environment.
4. Continue to review new investment programs that place an emphasis on environmental/green investments, where economically feasible. Some examples are: green Timber, opportunity funds focusing on green building investments, and Green REITS.
5. Continue to encourage investment partners to join the LEEDS/Energy Star programs.

V. STRATEGIC PLAN:

This item is consistent with the Strategic Plan: Goal VIII, manage the risk and volatility of assets and liabilities to ensure sufficient funds are available, first, to pay benefits and second, to minimize and stabilize contributions and Goal IX, achieve long-term, sustainable, risk-adjusted returns.

VI. RESULTS/COSTS:

No additional costs incurred for year 2005 on the Real Estate Energy Program. However, it is anticipated that additional staff time will be needed to be focused on this program, which can add some costs going forward.

Lynn Keay
Investment Officer

Diloshini Seneviratne
Investment Officer

Jose McNeill
Portfolio Manager

Alfonso Fernandez
Senior Portfolio Manager

Michael McCook
Senior Investment Officer

Anne Stausboll
Interim Chief Investment Officer

